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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/643,102	08/18/2003	Mark Krier	024833-2602	3314
30542 7590 09/10/2007 FOLEY & LARDNER LLP P.O. BOX 80278 SAN DIEGO, CA 92138-0278			EXAMINER A, MINH D	
			ART UNIT 2821	PAPER NUMBER
			MAIL DATE 09/10/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/643,102

Applicant(s)

KRIER ET AL.

Examiner

Minh D. A

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 and 23-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 and 23-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-2 and 3-8 and 9-17 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 2, 9-11, 12, 14-15 of copending Application No. 2004/0169614A1. Although the conflicting claims are not identical, they are not patentably distinct from each other because (i) the claimed invention of independent claims 1, 3, 9 and claims 2, 9-11 and 12, 14-15 of the stated U.S. copending Application No. 2004/0169614A1 are directed to a common subject matter, and (ii) the limitation "a first portion; a second portion; a third portion, the third portion coupled to the first portion and to the second portion; and a substrate, the substrate comprising at least one void, wherein the first portion, the second portion, and

the third portion define a capacitively coupled antenna, and wherein the antenna is coupled to the substrate and wherein a capacitive area of the antenna substantially spans the void" recited in claims 9-11 and 12, 14-15 of the stated U.S. copending Application No. 2004/0169614A1 such inclusion of part for the same practice would have been obviously well recognized by a person skilled in the art.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

3. Claims 23-25 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 2, 9-11 of copending Application No. 2004/0169614A1 in view of Parsche et al (US 6,597,318).

Regarding claims 23 and 25 claims 2, 9-11 of copending Application No. 2004/0169614A1 obviously discloses all of the claimed inventions of the claims 23 and 25 except for a plurality of antennas a wherein the at least two of the antennas each includes a capacitive area.

Parsche discloses a loop antenna and feed coupler for reduced interaction with tuning adjustment comprising: the substrate (101) comprising at least one void, see figures 3-4, and a capacitively coupled dipole antenna (106), and wherein the antenna (106) is coupled to the substrate (101). See figures 1-5, col.3, lines 45-67 to col.7, lines 1-50.

It would have been obvious to one of ordinary skill in the art to use the substrate (101) comprising at least one void, a capacitively coupled dipole antenna (106), and wherein the antenna (106) is coupled to the substrate (101) as suggested by

Parshe in the antenna system of copending Application No. 2004/0169614A1 in order to improve more antennas associate with voids on the substrate, since a modern electronic components that are commonly available and understood in the art as shown in Parshe, in order to gain the commonly understood benefits of such adaptation, such as decreased size, increased reliability, simplified operation, and reduced cost.

Regarding claim 24, Copending Application 2004/01696A does not disclose that, wherein the system comprise a wrist type of apparatus.

However, the wrist type of apparatus selected at a desired difference type apparatus based on a particular application or environment of use and such a selection would have been involved with only routine skill in the art. Therefore, to employ the wrist type of apparatus level to be suitable to a desired application or environment of use would have been deemed obvious to a person skilled in the art.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 3-6, 9, 12, 14, 23 and 25 are rejected under 35 U.S.C. 102(B) as being anticipated by Jong Cheo Yoon (UK Patent Application; GB 2,387,489).

Regarding claims 1,3, 9 and 23, figures 4b-4c, Jong Cheo discloses a planar antenna comprising a first portion (47); a second portion (43); a third portion (46)), the third portion (478) coupled to the first portion (46) and to the second portion (43)); and a substrate (101), the substrate (41) comprising at least one void, (figures 4b); wherein the first portion (47), the second portion (43), and the third portion (46) define a capacitively coupled dipole antenna and wherein the antenna is coupled to the substrate, and wherein a capacitive area of the antenna substantially spans void. See figures 1-4c, page 14 to page 17.

Regarding claim 4, Jong Cheo discloses wherein the third portion (46) comprises a length having a first end and a second end, and wherein the length is longer than a straight time distance between the first end and the second end. See figure 4c.

Regarding claims 5-6, Jong Cheo discloses wherein one or more portion of the third portion is disposed relative to the first portion and the second portion in a non-parallel relationship. See figures 4a-4c.

Regarding claim 12, Jong Cheo discloses wherein the system comprises a plurality of circuits. Figures 4a-4c.

Regarding claim 14, Jong Cheo discloses wherein the substrate comprises a second void, wherein at least one of the plurality of circuits is disposed within the second void. Figures 4a-4c.

Regarding claim 25, Jong Cheo discloses the at least two of the antennas comprise capacitor coupled dipole antennas. See figures 4-11C.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2, 13 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over by Jong Cheo Yoon (UK Patent Application; GB 2,387,489).

Regarding claims 2, 13 and 16, Jong Cheo essentially discloses the claimed invention but does not explicitly disclose that the antenna is configured to operate at a frequency selected from a group consisting of a GPS, and cellular phone frequency. It would have been an obvious matter of design choice to employ Jong Cheo in frequency selected of a group of GPS and cellular phone in order to maximize the usage of his invention, since applicant does not disclose that, all of these limitations can solve any stated problem and for any particular purpose. Therefore, it appears that the invention would not provide any improvement but merely apply the invention in different presentation.

8. Claims 7-8, 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over by Jong Cheo Yoon (UK Patent Application; GB 2,387,489) in view of Shamir et al (US 2004/0135726A1).

Regarding claims 7-8, 10-11, Jong Cheo discloses the claimed on invention except a high dissipation factor substrate or a FR4 substrate. However, Shamir

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discloses a high dissipation factor substrate or a FR4 substrate. See co1.3, lines [0030] to lines [[0031].

It would have been an obvious to one of ordinary skill in the art at the time the invention was made to employ a FR4 substrate such as that suggested by Shamir in the system of Jong Cheo to provide a high dielectric constant and decrease the effective wavelength of the electrical signal at antenna.

9. Claims 15, 17 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over by Jong Cheo Yoon (UK Patent Application; GB 2,387,489) in view of Ohoka et al (US 6,281,854).

Regarding claims 15, 17 and 24, Jong Cheo discloses claimed of invention except a wrist type apparatus. However, Ohoka discloses a wrist apparatus. See co1.1, lines 12- 26.

It would have been an obvious to one of ordinary skill in the art at the time the invention was made to employ a wrist apparatus such as that suggested by Ohoka in the system of Jong Cheo to provide a small or thin antenna or small antenna device for generating a high frequency.

Citation of relevant prior art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Honda (US 6,515,630) and Matsuyoshi et al. (US 6,549,169) are cited to show an antenna for wireless communication.

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh Dieu A whose telephone number is (571) 272-1817. The examiner can normally be reached on M-F (5:30 AM-2:45 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callahan can be reached on (571) 272-1740. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Examiner

Minh A

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8/20/07

Shih-Chao Chen
SHIH-CHAO CHEN
PRIMARY EXAMINER